

IN THE CLAIMS

The pending claims are as follows:

1 -38. (Cancelled)

39. (Previously Presented) A method of filtering packets from a network, the method comprising:

receiving a packet at a network adapter, the network adapter associated with a host computer in a power-managed state;

comparing a destination address of the received packet to an address of the host computer using a pattern filter of the network adapter to determine if the received packet is addressed to the host computer;

when the received packet is not addressed to the host computer, discarding the received packet;

when the received packet is addressed to the host computer, comparing a port identifier of the received packet to a port number assigned to an application executing on the host computer using a port filter of the network adapter;

when the received packet is addressed to the host computer and the port identifier does not match the port number, discarding the received packet using the port filter without waking up the host computer; and

when the received packet is addressed to the host computer and the port identifier matches the port number, sending a wake-up message from the port filter to the host computer.

40. (Previously Presented) The method of claim 39, wherein the wake-up message causes the host computer to transition from the power-managed state to an operational state.

41. (Previously Presented) The method of claim 39, before receiving the packet, the method further comprises:

receiving program information from the host computer, the program information associated with a port in use by a particular process running on the host computer; and
automatically configuring the port filter to filter packets based on the received program information.

42. (Previously Presented) The method of claim 41, wherein the program information comprises the port number.

43. (Previously Presented) The method of claim 39, before receiving the packet, the method further comprises:

receiving, at the port filter, program information from the host computer, the program information associated with a port in use by a particular process running on the host computer;
loading executable instructions from the received program information using the port filter; and

processing the executable instructions using a processor of the port filter to configure the port filter to filter packets.

44. (Previously Presented) The method of claim 39, further comprising determining a protocol identifier associated with the received packet using the packet filter.

45. (Previously Presented) A computer-readable medium embodying instructions that, when executed by a processor, cause a network adapter to perform a method comprising:

receiving a packet at a port filter of the network adapter of a host system in a power-managed state;

when the packet is not addressed to the host system, discarding the packet;

when the packet is addressed to the host system, determining a port identifier of the packet;

when the port identifier of the packet matches a port number of one or more port numbers associated with a process running on the host system, sending a wake-up message from the port filter to the host computer; and

when the port identifier does not match a port number of the one or more port numbers, discarding the packet using the port filter.

46. (Previously Presented) The computer-readable medium of claim 45, wherein the packet is discarded by the port filter without notifying the host system.

47. (Previously Presented) The computer-readable medium of claim 45, further embodying instructions that, when executed by the processor, cause the network adapter to perform the method further comprising:

identifying the port identifier within the received packet; and
comparing the identified port number to the one or more port numbers to identify a match.

48. (Previously Presented) The computer-readable medium of claim 45, further embodying instructions that, when executed by the processor, cause the network adapter to perform the method further comprising, before receiving the packet at the port filter, receiving program information from the host computer.

49. (Previously Presented) The computer-readable medium of claim 48, wherein the program information includes criteria associated with processes running on the host computer.

50. (Previously Presented) The computer-readable medium of claim 49, further embodying instructions that, when executed by the processor, cause the network adapter to perform the method further comprising comparing the port identifier to the criteria specified in the program information to identify matches.

51. (Previously Presented) The computer-readable medium of claim 48, further embodying instructions that, when executed by the processor, cause the network adapter to perform the method further comprising storing the program information in a memory of the port filter.

52. (Previously Presented) A network adapter associated with a host computer to filter packets received from the network, the network adapter comprising:

a networking device coupled to a network to send and receive packets of information to and from the network;

a pattern filter coupled to the networking device and configured to interrogate packets of information received from the network to determine whether each packet is addressed to the host computer, the pattern filter to discard or re-direct packets that are not addressed to the host computer without waking the host computer from a power-managed state; and

a port filter coupled to the pattern filter to receive packets directed to the host computer, the port filter to determine whether each directed packet includes a port identifier that matches a port number associated with a process running on the host computer, the port filter to discard directed packets when there is no match, the port filter to send a wake-up signal to the host computer only when the port identifier matches the port number and the packet is addressed to the host computer.

53. (Previously Presented) The network adapter of claim 52, wherein the wake-up signal is configured to cause the host computer to transition from the power-managed state to an operational state to process the packet.

54. (Previously Presented) The network adapter of claim 52, wherein the port filter is configured to forward directed packets addressed to the host computer and including the port identifier that matches the port number to the host computer for processing.

55. (Previously Presented) The network adapter of claim 52, wherein the host computer includes the networking device, the pattern filter, and the port filter, and wherein the wake-up signal is sent from the port filter to a processor of the host computer.

56 (Previously Presented) The network adapter of claim 52, wherein the port filter is configured to receive program information from the host computer and to filter packets based on the received program information.

57. (Previously Presented) The network adapter of claim 56, wherein the program information includes instructions executable by the port filter to filter packets.